

1 INTRODUCTION

1.1 PURPOSE AND NEED

The U.S. Department of the Interior (DOI), Bureau of Land Management (BLM), administers approximately 261 million acres (106 million ha) of public lands in the United States. This administrative responsibility must address stewardship, conservation, and resource use, including the development of energy resources in an environmentally sound manner. Wind energy is one of many energy resources now being developed on federal lands, with approximately 500 MW of installed wind capacity currently occurring on BLM-administered lands under right-of-way (ROW) grants administered by the BLM in accordance with the requirements of the Federal Land Policy and Management Act of 1976 (FLPMA) (*United States Code*, Title 43, Section 1701 et seq. [43 USC 1701 et seq.]). The BLM continues to receive new wind energy project proposals on BLM-administered lands.

As part of the National Energy Policy, in May 2001, the President's National Energy Policy Development Group (NEPDG) recommended to the President that the Departments of the Interior, Energy, Agriculture, and Defense work together to increase renewable energy production (NEPDG 2001). In July 2001, the Departments created an interagency task force to address the issues associated with increasing renewable energy production on federal lands (DOE and DOI 2002). The task force developed a Memorandum of Understanding (MOU) among the U.S. Department of Energy (DOE), DOI, U.S. Department of Agriculture (USDA), U.S. Environmental Protection Agency (EPA), Council on Environmental Quality (CEQ), and the members of the Western Governors' Association to establish a framework for cooperation between western states and the federal government to address energy problems facing the West and to facilitate renewable energy production. In response to National Energy Policy recommendations, the BLM also has undertaken efforts to evaluate wind energy potential on public lands and establish wind energy policy. Toward that end, the BLM issued an Interim Wind Energy Development Policy (BLM 2002a) (Appendix A) that establishes requirements for processing applications for wind energy site testing and monitoring and commercial wind energy development projects.

To support wind energy development on public lands and also to minimize potential environmental and sociocultural impacts, the BLM is seeking to build on the existing interim policy to establish a Wind Energy Development Program. Anticipated elements of the BLM's proposed Wind Energy Development Program include (1) an assessment of wind energy development potential on BLM-administered lands through 2025 (a 20-year period); (2) policies regarding the processing of wind energy development ROW grant applications; (3) best management practices (BMPs) for mitigating the potential impacts of wind energy development on BLM-administered lands; and (4) proposed amendments of specific land use plans to address wind energy development.

The BLM has determined that the establishment of a Wind Energy Development Program would be a major federal action as defined by the National Environmental Policy Act of 1969 (NEPA). Thus, the BLM has prepared this draft programmatic environmental impact statement

(PEIS). The objectives of the PEIS are to (1) assess the environmental, social, and economic impacts associated with wind energy development on BLM-administered land, and (2) evaluate a number of alternatives to address the question of whether the proposed action presents the best management approach for the BLM to adopt, in terms of mitigating potential impacts and facilitating wind energy development.

1.2 SCOPE OF THE ANALYSIS

This PEIS evaluates the potential impacts associated with the BLM's proposed action to develop a Wind Energy Development Program, as described in Section 2.2. It also assesses potential impacts associated with alternatives to the proposed action. These alternatives, which present different management options for wind energy development on BLM-administered land, are described in Sections 2.3 and 2.4.

The "Notice of Intent to Prepare a Programmatic Environmental Impact Statement (EIS) to Evaluate Wind Energy Development on Western Public Lands Administered by the Bureau of Land Management" (the NOI) was published in Volume 68, page 201, of the *Federal Register* (68 FR 201) on October 17, 2003. As stated in the NOI, the scope of the analysis includes an assessment of the positive and negative environmental, social, and economic impacts; discussion of relevant mitigation measures to address these impacts; and identification of appropriate, programmatic policies and BMPs to be included in the proposed Wind Energy Development Program. The scope includes all BLM-administered lands in the western United States, excluding Alaska. They are located in 11 states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. A maximum potential development scenario (MPDS) has been developed to help define the potential magnitude of future wind energy development activities on BLM-administered lands within these states (Section 2.2.1).

Also as stated in the NOI, potential land use plan amendments have been assessed (Section 2.2.4). The proposed amendments include (1) adoption of the proposed programmatic policies and BMPs and (2) identification of specific areas where wind energy development would not be allowed. None of the proposed amendments address designation of lands for competitive ROW bidding processes, although this was identified as a possibility in the NOI. Interest in competitive bidding processes currently is limited to two areas in California — the Palm Springs-South Coast Field Office and Ridgecrest Field Office — and would be addressed in local BLM land use planning efforts.

The analysis conducted in preparation of this PEIS was based on current, available, and credible scientific data. Programmatic policies and BMPs incorporated into the BLM's proposed Wind Energy Development Program are based on an interpretation of these scientific data and decisions on relevant mitigation requirements. Direct and indirect impacts of wind energy development on the environment, social systems, and the economy, as discussed at the programmatic level, have been evaluated. Cumulative impacts associated with the proposed action have also been evaluated.

As a programmatic evaluation, this PEIS does not evaluate site-specific issues associated with individual wind energy development projects. A variety of location-specific factors (e.g., soil type, watershed, habitat, vegetation, viewshed, public sentiment, the presence of threatened and endangered species, the presence of cultural resources) will vary considerably from site to site, especially over an 11-state region. In addition, the variations in project size and design will greatly determine the magnitude of the impacts from given projects. The combined effects of these location-specific and project-specific factors cannot be fully anticipated or addressed in a programmatic analysis; such effects must be evaluated at the project level. Thus, this PEIS identifies the range of potential impacts and identifies relevant mitigation measures. The proposed program establishes policies and BMPs to mitigate impacts that will apply to all wind energy development projects on BLM-administered lands. These proposed policies and BMPs are general in nature and do not address site-specific and species-specific issues and concerns. Site-specific and species-specific issues will be addressed during individual project reviews. Individual project analyses, review, and approval may tier off of the PEIS but will not be supplanted by it.

1.3 RELATIONSHIP OF THE PROPOSED ACTION TO OTHER BLM PROGRAMS, POLICIES, AND PLANS

The BLM develops land use plans to guide activities, stewardship goals, and management approaches. Most of the land use plans in the 11-state study area do not specifically address wind energy development, although they contain many provisions, stipulations, and guidelines that are relevant to wind energy development activities. Currently, BLM Field Offices follow the Interim Wind Energy Development Policy (BLM 2002a) (Appendix A) in their review and consideration of wind energy development projects.

The BLM's proposed Wind Energy Development Program evaluated in this PEIS will replace the Interim Wind Energy Development Policy and provide expanded direction for these types of projects. The proposed program will establish policies and BMPs that are specific to issues associated with wind energy development. Issues that are relevant but not unique to wind energy development (e.g., road construction and maintenance, wildlife management, hazardous materials and waste management, cultural resource management, pesticide use) will also be addressed in the proposed policies and BMPs, but not at the same level of detail as that provided in other existing BLM program-specific mitigation guidance documents. Other existing BLM program-specific guidance will apply to wind energy development projects and will not be replaced by the policies and BMPs of the proposed program.

As part of the proposed action, a number of existing land use plans would be amended to address wind energy development (Section 2.2.4). Additional land use plans may be amended or revised in the future to directly incorporate the policies and BMPs contained in the BLM's proposed Wind Energy Development Program. Alternatively, BLM Field Office staff may choose to implement elements of the program on a project-by-project basis only. Each wind energy development project would be evaluated individually, and the appropriate programmatic policies and BMPs and local stipulations would be applied.

1.4 ORGANIZATION OF THE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

This PEIS consists of Chapters 1 through 10 and six appendixes. A brief summary of each main component follows:.

- Chapter 1 provides a discussion of the purpose and need for the proposed action; the scope of analysis; and the relationship of the proposed action to other BLM programs, policies, and plans.
- Chapter 2 provides descriptions of the proposed action and alternatives to the proposed action assessed in this PEIS. These alternatives present different options for managing wind energy development on BLM-administered lands. The description of the proposed action includes discussions of the MPDS and the elements of the proposed Wind Energy Development Program. This chapter also provides a summary section comparing the management alternatives on the basis of their effectiveness at mitigating potential impacts and facilitating wind energy development, as discussed in detail in Chapter 6.
- Chapter 3 presents information describing wind energy projects, including descriptions of typical activities conducted during each phase of development; regulatory requirements; health and safety aspects; hazardous materials and waste management; transportation considerations; and relevant existing guidelines on mitigation.
- Chapter 4 describes the affected environment of the 11-state study area, with general descriptions of the natural, cultural, and socioeconomic conditions. These descriptions provide the level of detail needed to support a programmatic evaluation and identify site-specific factors that would need to be examined at the project level.
- Chapter 5 describes potential impacts to the affected environment that could occur on BLM-administered lands under the MPDS described in Chapter 2. It also discusses relevant impact mitigation measures and describes the process for selecting which mitigation measures were appropriate for inclusion in the programmatic BMPs of the proposed Wind Energy Development Program.
- Chapter 6 describes the potential impacts of the proposed action and the alternatives described in Chapter 2. This analysis evaluates the effectiveness of the management approaches at mitigating potential impacts and facilitating wind energy development on BLM-administered lands.
- Chapter 7 describes the consultation and coordination activities conducted in the course of this PEIS, including public scoping, government-to-government consultation, coordination with BLM State and Field Offices, and interagency consultation and coordination.

- Chapters 8 through 10 provide references cited in this PEIS, the list of preparers, and a glossary.
- Appendix A provides the Interim Wind Energy Development Policy (IM 2003-02-) (BLM 2002a) in its entirety.
- Appendix B describes the methodologies the National Renewable Energy Laboratory (NREL) used to construct the MPDS and to project the amount of wind power generation over the next 20 years. It also contains maps showing potential Class 3 and higher wind resources for each BLM Field Office in the 11-state study area.
- Appendix C contains a list of each of the land use plans that are proposed for amendment through this PEIS. For each plan, the proposed change is listed along with the rationale for the change.
- Appendix D provides information about wind energy technology.
- Appendix E contains information about regulations and statutes that may be relevant to wind energy development.
- Appendix F contains detailed descriptions of ecoregions in the 11-state study area and state maps showing the overlap of potentially developable wind resources with the ecoregions.

